North Staffordshire Royal Infirmary, Stoke-on-Trent; Nottingham City Hospital; Papworth Hospital, Cambridge; Queen Elizabeth Hospital, Birmingham; Queen Mary's Hospital, Sidcup; Queen's Medical Centre, Nottingham; Royal Cornwall Hospital, Truro; Royal Infirmary of Edinburgh; Royal London Hospital, London E1; Royal Postgraduate Medical School, London W12; Royal United Hospital, Bath; South Cleveland Hospital, Middlesbrough; St Bartholomew's Hospital, London EC1; St Georges Hospital, London SW17; St Mary's Hospital & Medical School, London W2; Torbay Hospital, Torquay; University Hospital of Wales, Cardiff; Victoria Hospital, Blackpool; Wythenshawe Hospital, Manchester; York District Hospital

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IMAGES IN CARDIOLOGY

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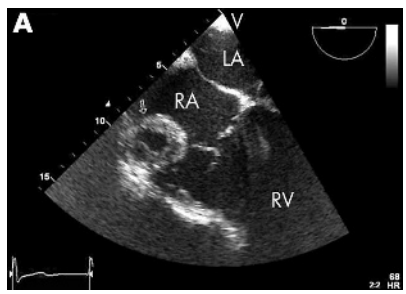
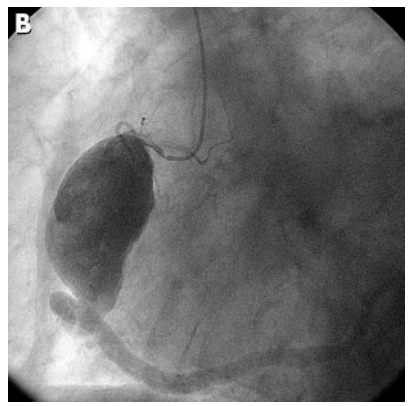
An unusual mass related to the right atrium

An 81 year old man presented with progressive exertional breathlessness (New York Heart Association functional class III) and an apical pan-systolic murmur. He was hypertensive but had no other risk factors for ischaemic heart disease. Electrocardiography showed voltage criteria for left ventricular hypertrophy. Transthoracic echocardiography revealed severe eccentric mitral regurgitation and he was referred for transoesophageal echocardiography (TOE) to assess suitability for surgical mitral valve repair. TOE demonstrated severe mitral regurgitation with a posteriorly directed jet secondary to chordal rupture and flail P2 and P3 scallops. The left ventricle was dilated with an end diastolic dimension of 6.3 cm and an end systolic dimension of 4.0 cm. Left ventricular ejection fraction was 65% and fractional shortening was 37%. There was degenerative thickening and calcification of a tricuspid aortic valve with moderate regurgitation. An unexpected finding, however, was of a large (3.3 × 3.8 cm) and thick walled mass lateral to the tricuspid valve annulus beneath the right atrial appendage (panel A). Subsequent coronary angiography confirmed the presence of a proximal right coronary artery aneurysm without associated stenosis (panel B). The left coronary system showed no obstructive coronary disease. The operative mortality for combined mitral valve repair and aortic valve replacement in his case was considered to be significant and the patient opted for medical management.





Isolated coronary artery aneurysms are most often caused by atherosclerosis. Rarer causes include connective tissue disorders, Kawasaki disease and cocaine abuse.

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